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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,768	03/29/2004	Kiyoshi Ooi	CU-3664 RJS	9500
26530	7590	12/21/2005		
LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1600 CHICAGO, IL 60604			EXAMINER WILSON, CHRISTIAN D	
			ART UNIT	PAPER NUMBER
			2891	

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AKC

Office Action Summary	Application No. 10/811,768	Applicant(s) OOI ET AL.	
	Examiner Christian Wilson	Art Unit 2891	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03292004</u> . | 6) <input checked="" type="checkbox"/> Other: <u>search history</u> . |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 10 – 23 in the reply filed on October 7, 2005 is acknowledged.
2. Claims 1 – 9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 7, 2005.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 10 – 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Buckley *et al.*

Regarding claim 10, Buckley *et al.* (US 5,477,082) discloses a semiconductor device comprising a base **62** having an opening formed at the portion corresponding to the electronic component [Figure 3], an electronic component **56**, and a substrate body **60** on the base and holding electronic component, where the component includes an electrode **76** made of a single conductive material exposed at the opening [Figure 4].

Regarding claim 11, Buckley *et al.* further discloses an electrode which projects through the substrate body [Figure 4] and is connectable to an externally provided semiconductor element 58.

Regarding claim 12, Buckley *et al.* further discloses an electrode which projects from the surface of the electronic component [Figure 4] facing the opening and is connectable to an externally provided semiconductor element 58.

Regarding claim 13, Buckley *et al.* further discloses a substrate body with a cavity 78 adjacent to the opening to which the electrode is exposed.

Regarding claim 14, Buckley *et al.* discloses a semiconductor device comprising a base 62 having an opening formed at the portion corresponding to the electronic component [Figure 3], an electronic component 56, and a substrate body 60 on the base and holding electronic component, where the component includes an electrode 76 made of a single conductive material exposed at the opening [Figure 4], and a semiconductor element 58 mounted on the device substrate and electrically connected to the electrode [Figure 4].

Regarding claim 15, Buckley *et al.* further discloses an electrode which projects through the substrate body [Figure 4].

Regarding claim 16, Buckley *et al.* further discloses an electrode which projects from the surface of the electronic component [Figure 4] facing the opening.

Regarding claim 17, Buckley *et al.* further discloses a substrate body with a cavity 78 adjacent to the opening to which the electrode is exposed.

Regarding claim 18, Buckley *et al.* discloses a semiconductor device comprising a base 62 having an opening formed at the portion corresponding to the electronic component [Figure

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3], an electronic component **56**, and a substrate body **60** on the base and holding electronic component, where the component includes an electrode **76** made of a single conductive material exposed at the opening [Figure 4], and a substrate body with a cavity **78** adjacent to the opening to which the electrode is exposed.

Regarding claim 19, Buckley *et al.* further discloses an electrode which projects into the cavity [Figure 4].

Regarding claim 20, Buckley *et al.* further discloses a top of the electrode which is substantially uniform with the surface of the substrate body that faces the opening of the base [Figure 4].

Regarding claim 21, Buckley *et al.* discloses a semiconductor device comprising a base **62** having an opening formed at the portion corresponding to the electronic component [Figure 3], an electronic component **56**, and a substrate body **60** on the base and holding electronic component, where the component includes an electrode **76** made of a single conductive material exposed at the opening [Figure 4], a substrate body with a cavity **78** adjacent to the opening to which the electrode is exposed, and a semiconductor element **58** mounted on the device substrate and electrically connected to the electrode [Figure 4].

Regarding claim 22, Buckley *et al.* further discloses an electrode which projects into the cavity [Figure 4].

Regarding claim 23, Buckley *et al.* further discloses a top of the electrode which is substantially uniform with the surface of the substrate body that faces the opening of the base [Figure 4].

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited prior art teaches flip chip bonded devices.

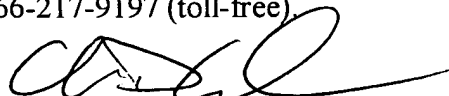
6. A copy of the EAST search history is enclosed.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian Wilson whose telephone number is (571) 272-1886.

The examiner can normally be reached on weekdays, 7:30 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Baumeister can be reached on (571) 272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Christian Wilson, Ph.D.
Primary Examiner
Art Unit 2891

CDW